

# PATENT COOPERATION TREATY

From the:  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:  
  
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## PCT WRITTEN OPINION (PCT Rule 66)

Date of mailing  
(day/month/year) **20 JAN 2004**

Applicant's or agent's file reference  
**80524510 ROG**

**REPLY DUE** within **TWO MONTHS**  
from the above date of mailing

International Application No.  
**PCT/AU2003/000730**

International Filing Date (day/month/year)  
**12 June 2003**

Priority Date (day/month/year)  
**18 June 2002**

International Patent Classification (IPC) or both national classification and IPC  
**Int. Cl. 7 B42D 15/10, G02F 1/1335, 1/1337**

**FREEHILLS CARTER SMITH BEADLE**

Applicant  
**SECURENCY PTY LTD et al**

Received **22 JAN 2004**

Updated **Y/N** By: **R**

Due Date **18/2/04**

Send to **PSC**

1. This written opinion is the **first** drawn by this International Preliminary Examining Authority.
2. This opinion contains indications relating to the following items:
 

I	<input checked="" type="checkbox"/>	Basis of the opinion
II	<input type="checkbox"/>	Priority
III	<input type="checkbox"/>	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV	<input type="checkbox"/>	Lack of unity of invention
V	<input checked="" type="checkbox"/>	Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI	<input type="checkbox"/>	Certain documents cited
VII	<input type="checkbox"/>	Certain defects in the international application
VIII	<input checked="" type="checkbox"/>	Certain observations on the international application
3. The **FINAL DATE** by which the international preliminary examination report must be established according to Rule 69.2 is:  
**18 October 2004**
4. The applicant is hereby invited to reply to this opinion.
 

**When?** See the **Reply Due** date indicated above. However, the Australian Patent Office will not establish the Report before the earlier of (i) a response being filed, or (ii) one month before the **Final Date** by which the international preliminary examination report must be established. The Report will take into account any response (including amendments) filed before the Report is established. **If no response is filed by 1 month before the Final Date**, the international preliminary examination report will be established on the basis of this opinion.

Applicants wishing to have the benefit of a further opinion (if needed) before the report is established should ensure that a response is filed at least **3 months before the Final Date** by which the international preliminary examination report must be established.

**How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

**Also** For an additional opportunity to submit amendments, see Rule 66.4.  
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4bis.  
For an informal communication with the examiner, see Rule 66.6.

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**I. Basis of the opinion**

**1. With regard to the elements of the international application:\***

- ☒ the international application as originally filed.
- ☐ the description, pages , as originally filed,  
pages , filed with the demand,  
pages , received on with the letter of
- ☐ the claims, pages , as originally filed,  
pages , as amended under Article 19,  
pages , filed with the demand,  
pages , received on with the letter of
- ☐ the drawings, pages , as originally filed,  
pages , filed with the demand,  
pages , received on with the letter of
- ☐ the sequence listing part of the description:  
pages , as originally filed  
pages , filed with the demand  
pages , received on with the letter of

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:**

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

**4. The amendments have resulted in the cancellation of:**

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/fig.

**5. This opinion has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

*\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"*

**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Claims 2-19, 21-48	YES
	Claims 1, 20	NO
Inventive step (IS)	Claims 2-19, 21-48	YES
	Claims 1, 20	NO
Industrial applicability (IA)	Claims 1-48	YES
	Claims	NO

**2. Citations and explanations**

EP 0727691 A1 (SAGEM S.A.) 21 August 1996—See abstract

US 5032009 A (GIBBONS et al) 16 July 1991—See whole document

EP 1189079 A (TOPPAN PRINTING CO LTD) 20 March 2002—See whole document. Paragraph [0072] discloses formation of latent image by applying both heat and pressure, or alternatively by heating by use of a laser and pressurizing by use of another apparatus. Neither method involves the use of a mask.

EP 0880051 A2 (HITACHI LTD) 25 November 1998—See abstract

WO 96/31876 A1 (ALLIANT TECHSYSTEMS INC) 10 October 1996—See abstract

**NOVELTY (N), INVENTIVE STEP (IS), INDUSTRIAL APPLICABILITY (IA) CLAIMS 1, 20**

Claims 1 and 20 are not novel and consequently do not involve an inventive step in light of EP 1189079 cited above.

None of the cited documents discloses or (individually or in an obvious combination) suggests the invention as claimed in claims 2-19 or 21-48 wherein a latent image is formed by *printing* either the photo-alignment layer or the liquid crystal layer *without the use of a mask*. Therefore the claimed invention is novel, involves an inventive step, and is industrially applicable.

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. The claims are not clear and not fully supported by the description because they attempt to seek the invention ("without the use of a mask") simply by disclaiming the prior art, instead of by means of positive features that define the invention.
2. It is not clear whether the requirement of unity of invention is satisfied. It appears that there are a number of different inventions described in the specification—see page 2, lines 22–28, and page 3, line 10 to page 4, line 2. While each of these inventions are distinguished over the described prior art in that they avoid the use of a mask, these different inventions are not so linked to as to form a common general inventive concept. Disclaiming the prior art ("without the use of a mask") cannot be considered to be a special technical feature of the invention.
3. In consequence of observations 1 and 2, it is not clear which special technical features are sought to be protected by the claims.
4. The claims are not fully supported by the description because they do not specify that the photo-alignment layer comprises a photo-orientable polymer network (PPN) of the type described in US 5,602,661 and US 6,160,597.
5. The description (page 4, line 3 onwards) is not clear about the "third aspect of the invention". This aspect appears to have been neither exemplified nor claimed.